FILE 'CAPLUS, BIOSIS' ENTERED AT 15:22:34 ON 04 MAR 2005

L1	1829	ONCOLYTIC OR ONCOLYSIS
L2	24889	HSV
L3	182	L2 AND L1
L4	29	34.5 AND L3
L5	3	"SUPPRESIVE AGENT"
L6	0	CYCLOSPORIN AND L4
L7	42	VSV AND L1
L8	16	NDV AND L1
L9	36	INFLUENZA AND L1
L10	30473	"EX VIVO"
L11	2	L10 AND L7
L12	0	L10 AND L8
L13	0	L10 AND L9
L14	4	LEUKEMIA AND L7
L15	3	LEUKEMIA AND L8
L16	4	LEUKEMIA AND L9
L17	69	REOVIRUS AND L1
L18	8	L17 AND L10
L19	2	LEUKEMIA AND L18
L20	0	L9 AND HEMATOPOEITIC
L21	0	L4 AND L10
L22	2	L7 AND L10
L23	4	L7 AND LEUKEMIA
L24	0	L4 AND CYCLOSPORIN
L25	0	L4 AND IMMUNE (S) SUPPRESSIVE
L26	0	L4 AND SUPPRESSION
L27	0	L4 AND CPA
L28	1	CYCLOPHOSPHAMIDE AND L4
L29	34601	CYCLOSPORIN
L30	0	L29 AND L4

L16 ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1988:344906 BIOSIS
DOCUMENT NUMBER: PREV198835039748; BR35:39748
TITLE: EFFECT OF VMTE AND IL-2 ON **ONCOLYTIC** ACTIVITY OF PERIPHERAL BLOOD AND PERITONEAL EFFECTOR CELLS OF PATIENTS WITH ADVANCED OVARIAN CANCER.
AUTHOR(S): FURUKAWA K [Reprint author]; LOTZOVA E; FREEDMAN R S; EDWARDS C L; WHARTON J T; BOWEN J M
CORPORATE SOURCE: UNIV TEX, MD ANDERSON HOSP AND TUMOR INST, HOUSTON, TEX 77030, USA
SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (1988) Vol. 29, pp. 385.
Meeting Info.: 79TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, NEW ORLEANS, LOUISIANA, USA, MAY 25-28, 1988. PROC AM ASSOC CANCER RES ANNU MEET.
ISSN: 0197-016X.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Jul 1988
Last Updated on STN: 26 Jul 1988

L16 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1976:33814 BIOSIS
DOCUMENT NUMBER: PREV197612033814; BR12:33814
TITLE: ACUTE MYELO BLASTIC **LEUKEMIA** REPLICATION OF AVIAN **INFLUENZA** VIRUS IN HUMAN MYELO BLASTS AND 1ST ATTEMPT AT CLINICAL APPLICATION.
AUTHOR(S): SAUTER C; LINDENMANN J; GERBER A; MARTZ G
SOURCE: (1974) pp. 455-460. MATHE, G. AND R. WEINER (ED.). RECENT RESULTS IN CANCER RESEARCH, VOL. 47. INVESTIGATION AND STIMULATION OF IMMUNITY IN CANCER PATIENTS. PROCEEDINGS OF THE CNRS COLLOQUIUM, PARIS, FRANCE, JUNE 21-22, 1972. IX+501P. ILLUS. SPRINGER-VERLAG: NEW YORK, N.Y., U.S.A.; HEIDELBERG, WEST GERMANY. ISBN 0-387-06771-X; ISBN 3-540-06771-X.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: Unavailable
ENTRY DATE: Entered STN: 28 Apr 1986
Last Updated on STN: 28 Apr 1986

L28 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:168153 CAPLUS
DOCUMENT NUMBER: 134:217999
TITLE: Cell-specific and/or tumor-specific promoter retargeting of herpes simplex virus γ **34**.**5** gene-mediated expression
INVENTOR(S): Chiocca, E. Antonio; Chung, Richard Y.
PATENT ASSIGNEE(S): The General Hospital Corporation, USA
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001016331	A1	20010308	WO 2000-US2409		20000202
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2383372	AA	20010308	CA 2000-2383372		20000202
EP 1212428	A1	20020612	EP 2000-913305		20000202
EP 1212428	B1	20041201			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
JP 2003508055	T2	20030304	JP 2001-520877		20000202
AT 283921	E	20041215	AT 2000-913305		20000202
ZA 2002002413	A	20030404	ZA 2002-2413		20020326
PRIORITY APPLN. INFO.:			US 1999-151621P	P	19990831
			WO 2000-US2409	W	20000202

AB The present invention relates to herpes viral mutants and methods of using these viral mutants for selectively targeting tumor cells or other populations of target cells. The viral mutants of the invention are capable of selective targeting due to the use of tumor-specific and/or cell-specific promoters to drive expression of the herpes γ **34**.**5** gene. To target lytic virulence to tumors a novel **HSV**-1 mutant, designated Myb34.5, was created. This viral mutant is characterized by a deletion of the gene for infected cell polypeptide 6 (ICP6; also known as UL39 or ribonucleotide reductase) and of the two endogenous copies of the γ **34**.**5** gene (RL1) and by reintroduction of one copy of γ **34**.**5** under control of the E2F-responsive, cellular B-myb promoter. Myb34.5's **oncolytic** efficacy against a variety of human glioma cells in culture and in vivo was enhanced compared to that of **HSVs** with γ **34**.**5** mutations, and in fact, it was comparable to that of the wild-type F strain and of viral mutants that possess a wild-type γ **34**.**5** gene. These results suggest that transcriptional regulation of γ **34**.**5** by cell cycle-regulated promoters can be used to target **HSV**-1 virulence toward tumors while maintaining the desirable neuroattenuated phenotype of a γ **34**.**5** mutant.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1970:130465 CAPLUS
DOCUMENT NUMBER: 72:130465
TITLE: Inhibitory effect of myxoviruses on a transplantable murine **leukemia**
AUTHOR(S): Eaton, M. D.; Scala, A. R.
CORPORATE SOURCE: Dep. of Bacteriol. and Immunol., Harvard Med. Sch., Boston, MA, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1969), 132(1), 20-6
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Immunization of mice with parainfluenza viruses **NDV** or Sendai virus increases the **oncolytic** effect of these viruses when preinfected leukemic cells are injected into mice. Variations in **oncolytic** activity between different strains of influenza and parainfluenza viruses were noted, and also between 2 leukemic tumors induced by the Gross virus. Statolon given before virus-infected cells prevents **oncolysis** but has no effect when given later. Antiserum to **NDV** or Sendai (plus complement) shows a cytolytic effect in vitro against leukemic cells infected with these viruses.

L15 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1989:7576 BIOSIS
DOCUMENT NUMBER: PREV198987007576; BA87:7576
TITLE: NEWCASTLE DISEASE VIRUS AS AN ANTINEOPLASTIC AGENT INDUCTION OF TUMOR NECROSIS FACTOR-ALPHA AND AUGMENTATION OF ITS CYTOTOXICITY.
AUTHOR(S): LORENCE R M [Reprint author]; ROOD P A; KELLEY K W
CORPORATE SOURCE: UNIV ILLINOIS, 162 ASL, 1207 W GREGORY DR, URBANA, ILL 61801, USA
SOURCE: Journal of the National Cancer Institute (Bethesda), (1988) Vol. 80, No. 16, pp. 1305-1312.
CODEN: JNCIEQ. ISSN: 0027-8874.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 6 Dec 1988
Last Updated on STN: 6 Dec 1988
AB The **oncolytic** strain 73-T of Newcastle disease virus (**NDV**) has been reported to be beneficial in the treatment of cancer patients, but little is known about its mechanism of action. In this study, **NDV** strain 73-T and a wild-type isolate of **NDV** were found to be potent inducers of tumor necrosis factor (TNF) production by both human peripheral blood mononuclear cells (PBMCs) and rat splenocytes. Antibody inhibition experiments identified TNF-α as the major species of TNF induced by **NDV** in PBMCs. The effect of recombinant human TNF-α (rHuTNF-α) on human cancer cells was then examined. Neither rHuTNF-α nor supernatants from **NDV** -stimulated PBMCs were cytotoxic toward the TNF-resistant human malignant melanoma cell line MEL-14. However, when MEL-14 cells were treated with **NDV** strain 73-T, both rHuTNF-α and supernatants from **NDV**-stimulated PBMCs killed 48% and 55%, respectively, of these tumor cells. Treatment with **NDV** also conferred TNF susceptibility to the TNF-resistant human malignant melanoma cell line MEL-21 and the human myelogenous **leukemia** cell line K562. In contrast to its enhanced cytotoxicity toward **NDV**-treated cancer cells, rHuTNF-α had no effect on **NDV**-treated normal human PBMCs proliferating in response to concanavalin A. These results suggest two important mechansims for the antineoplastic activity of **NDV**: (a) induction of TNF-α secretion by human PBMCs and (b) enhancement of the sensitivity of neoplastic cells to the cytolytic effects of TNF-α

```
=> RNA (s) virus
        285015 RNA
         22944 RNAS
        289234 RNA
                 (RNA OR RNAS)
        315132 VIRUS
         67293 VIRUSES
        326677 VIRUS
                 (VIRUS OR VIRUSES)
L11      44357 RNA (S) VIRUS

=> oncolysis and l11
           179 ONCOLYSIS
L12          5 ONCOLYSIS AND L11

=> VSV and oncolytic
          2346 VSV
            20 VSVS
          2348 VSV
                 (VSV OR VSVS)
           806 ONCOLYTIC
            63 ONCOLYTICS
           864 ONCOLYTIC
                 (ONCOLYTIC OR ONCOLYTICS)
L13         23 VSV AND ONCOLYTIC

=> NDV and oncolytic
          1243 NDV
            11 NDVS
          1245 NDV
                 (NDV OR NDVS)
           806 ONCOLYTIC
            63 ONCOLYTICS
           864 ONCOLYTIC
                 (ONCOLYTIC OR ONCOLYTICS)
L14          9 NDV AND ONCOLYTIC

=> ex (w) vivo
         34598 EX
            40 EXES
         34638 EX
                 (EX OR EXES)
        392173 VIVO
             1 VIVOS
        392173 VIVO
                 (VIVO OR VIVOS)
L15      13869 EX (W) VIVO

=> autotranslantation
             0 AUTOTRANSLANTATION
L16          0 AUTOTRANSLANTATION

=> autography
            56 AUTOGRAPHY
           223 AUTOG
L17        267 AUTOGRAPHY
                 (AUTOGRAPHY OR AUTOG)

=> " bone marrrow translantation"
        167745 "BONE"
         21243 "BONES"
        173616 "BONE"
                 ("BONE" OR "BONES")
             5 "MARRROW"
             0 "TRANSLANTATION"
L18          0 " BONE MARRROW TRANSLANTATION"
                 ("BONE"(W)"MARRROW"(W)"TRANSLANTATION")
```

```
=> Bone (w) marrow
        167745 BONE
         21243 BONES
        173616 BONE
                  (BONE OR BONES)
         65128 MARROW
           454 MARROWS
         65230 MARROW
                  (MARROW OR MARROWS)
L19      61364 BONE (W) MARROW

=> autotransplantation
           557 AUTOTRANSPLANTATION
             5 AUTOTRANSPLANTATIONS
L20        561 AUTOTRANSPLANTATION
                  (AUTOTRANSPLANTATION OR AUTOTRANSPLANTATIONS)

=> L19 and L20
L21         71 L19 AND L20

=> oncolysis and L21
           179 ONCOLYSIS
L22          0 ONCOLYSIS AND L21

=> oncolytic and L21
           806 ONCOLYTIC
            63 ONCOLYTICS
           864 ONCOLYTIC
                  (ONCOLYTIC OR ONCOLYTICS)
L23          0 ONCOLYTIC AND L21

=> L15 and oncolysis
           179 ONCOLYSIS
L24          4 L15 AND ONCOLYSIS

=> reovirus and oncolysis
          1893 REOVIRUS
           317 REOVIRUSES
          1959 REOVIRUS
                  (REOVIRUS OR REOVIRUSES)
           179 ONCOLYSIS
L25         13 REOVIRUS AND ONCOLYSIS

=> L15 and L25
L26          3 L15 AND L25

=> D L26 IBIB ABS 1-3

L26  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:        2003:513612  CAPLUS
DOCUMENT NUMBER:         139:362492
TITLE:                   Reovirus oncolysis as a novel
                         purging strategy for autologous stem cell
                         transplantation
AUTHOR(S):               Thirukkumaran, Chandini M.; Luider, Joanne M.;
                         Stewart, Douglas A.; Cheng, Tina; Lupichuk, Sasha M.;
                         Nodwell, Michael J.; Russell, James A.; Auer, Iwona
                         A.; Morris, Donald G.
CORPORATE SOURCE:        Calgary Laboratory Services, Calgary, AB, Can.
SOURCE:                  Blood (2003), 102(1), 377-387
                         CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER:               American Society of Hematology
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Hematol. stem cell rescue after high-dose cytotoxic therapy is extensively
     used for the treatment of many hematopoietic and solid cancers.  Gene
     marking studies suggest that occult tumor cells within the autograft may
```

contribute to clin. relapse. To date purging of autografts contaminated with cancer cells was unsuccessful. The selective oncolytic property of **reovirus** against myriad malignant histologies in in vitro, in vivo, and **ex vivo** systems was previously demonstrated. In the present study the authors have shown that **reovirus** can successfully purge cancer cells within autografts. Human monocytic and myeloma cell lines as well as enriched **ex vivo** lymphoma, myeloma, and Waldenstroem macroglobulinemia patient tumor specimens were used in an exptl. purging model. Viability of the cell lines or purified **ex vivo** tumor cells of diffuse large B-cell lymphoma, chronic lymphocytic leukemia, Waldenstroem macroglobulinemia, and small lymphocytic lymphoma was significantly reduced after **reovirus** treatment. Further, [35S]-methionine labeling and sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) of cellular proteins demonstrated **reovirus** protein synthesis and disruption of host cell protein synthesis as early as 24 h. , Admixts. of apheresis product with the above-mentioned tumor cells and cell lines treated with **reovirus** showed complete purging of disease. In contrast, **reovirus** purging of enriched **ex vivo** multiple myeloma, Burkitt lymphoma, and follicular lymphoma was incomplete. The oncolytic action of **reovirus** did not affect CD34+ stem cells or their long-term colony-forming assays even after granulocyte colony-stimulating factor (G-CSF) stimulation. The authors' results indicate the **ex vivo** use of an unattenuated oncolytic virus as an attractive purging strategy for autologous stem cell transplantations.

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:420834 CAPLUS

DOCUMENT NUMBER: 137:332821

TITLE: **Reovirus oncolysis** of human breast cancer

AUTHOR(S): Norman, Kara L.; Coffey, Matthew C.; Hirasawa, Kensuke; Demetrick, Douglas J.; Nishikawa, Sandra G.; DiFrancesco, Lisa M.; Strong, James E.; Lee, Patrick W. K.

CORPORATE SOURCE: Cancer Biology Research Group, Faculty of Medicine, Department of Microbiology and Infectious Diseases, University of Calgary, Calgary, AB, T2N 4N1, Can.

SOURCE: Human Gene Therapy (2002), 13(5), 641-652
CODEN: HGTHE3; ISSN: 1043-0342

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors have previously shown that human **reovirus** replication is restricted to cells with an activated Ras pathway, and that **reovirus** could be used as an effective oncolytic agent against human glioblastoma xenografts. This study examines in more detail the feasibility of **reovirus** as a therapeutic for breast cancer, a subset of cancer in which direct activating mutations in the ras proto-oncogene are rare, and yet where unregulated stimulation of Ras signaling pathways is important in the pathogenesis of the disease. The authors demonstrate herein the efficient lysis of breast tumor-derived cell lines by the virus, whereas normal breast cells resist infection in vitro. In vivo studies of **reovirus** breast cancer therapy reveal that viral administration could cause tumor regression in an MDA-MB-435S mammary fat pad model in severe combined immunodeficient mice. **Reovirus** could also effect regression of tumors remote from the injection site in an MDA-MB-468 bilateral tumor model, raising the possibility of systemic therapy of breast cancer by the oncolytic agent. Finally, the ability of **reovirus** to act against primary breast tumor samples not propagated as cell lines was evaluated; the authors found that **reovirus** could indeed replicate in **ex vivo** surgical specimens. Overall, **reovirus** shows promise as a potential breast cancer therapeutic.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:509668 CAPLUS
DOCUMENT NUMBER: 136:241196
TITLE: **Reovirus** as an oncolytic agent against experimental human malignant gliomas
AUTHOR(S): Wilcox, M. Elizabeth; Yang, WenQing; Senger, Donna; Rewcastle, N. Barry; Morris, Donald G.; Brasher, Penny M. A.; Shi, Z. Qiao; Johnston, Randal N.; Nishikawa, Sandi; Lee, P. W. K.; Forsyth, Peter A.
CORPORATE SOURCE: Departments of Oncology and Clinical Neurosciences, University of Calgary, AB, Can.
SOURCE: Journal of the National Cancer Institute (2001), 93(12), 903-912
CODEN: JNCIEQ; ISSN: 0027-8874
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Reovirus** is a naturally occurring oncolytic virus that usurps activated Ras-signaling pathways of tumor cells for its replication. Ras pathways are activated in most malignant gliomas via upstream signaling by receptor tyrosine kinases. The purpose of this study was to determine the effectiveness of **reovirus** as an exptl. treatment for malignant gliomas. We investigated whether **reovirus** would infect and lyse human glioma cell lines in vitro. We also tested the effect of injecting live **reovirus** in vivo on human gliomas grown s.c. or orthotopically (i.e., intracerebrally) in mice. Finally, **reovirus** was tested **ex vivo** against low-passage cell lines derived from human glioma specimens. All P values were two-sided. **Reovirus** killed 20 (83%) of 24 established malignant glioma cell lines tested. It caused a dramatic and often complete tumor regression in vivo in two s.c. ($P = .0002$ for both U251N and U87) and in two intracerebral ($P = .0004$ for U251N and $P = .0009$ for U87) human malignant glioma mouse models. As expected, serious toxic effects were found in these severely immunocompromised hosts. In a less immunocompromised mouse model, a single intratumoral inoculation of live **reovirus** led to a dramatic prolongation of survival (compared with control mice treated with dead virus; log-rank test, $P < .0001$ for both U251N and U87 cell lines). The animals treated with live virus also appeared to be healthier and gained body weight ($P = .0001$). We then tested the ability of **reovirus** to infect and kill primary cultures of brain tumors removed from patients and found that it killed nine (100%) of nine glioma specimens but none of the cultured meningiomas. **Reovirus** has potent activity against human malignant gliomas in vitro, in vivo, and **ex vivo**. **Oncolysis** with **reovirus** may be a potentially useful treatment for a broad range of human cancers.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L12 IBIB ABS 1-5

L12 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:190744 CAPLUS
DOCUMENT NUMBER: 140:350159
TITLE: **Oncolysis** of Multifocal Hepatocellular Carcinoma in the Rat Liver by Hepatic Artery Infusion of Vesicular Stomatitis Virus
AUTHOR(S): Shinozaki, Katsunori; Ebert, Oliver; Kournioti, Chryssanthi; Tai, Yun-Sheng; Woo, Savio L. C.
CORPORATE SOURCE: Carl C. Icahn Center for Gene Therapy and Molecular Medicine, Mount Sinai School of Medicine, New York, NY, 10029-6574, USA
SOURCE: Molecular Therapy (2004), 9(3), 368-376
CODEN: MTOHCK; ISSN: 1525-0016
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Hepatocellular carcinoma (HCC) is a lethal malignancy with poor prognosis and few effective treatments, as well as ever-increasing frequencies in the Western world. Viruses that replicate selectively in cancer cells hold considerable promise as novel therapeutic agents for the treatment of malignancy. Vesicular stomatitis **virus** (VSV) is a neg.-strand **RNA virus** with intrinsic oncolytic specificity due to significantly attenuated antiviral responses in many tumor cells. The aim of this study was to evaluate the potential of VSV, administered via the hepatic artery, as an effective and safe therapeutic agent for treating "multifocal" HCC in the rat liver. Recombinant VSV vector expressing β-galactosidase (rVSV-β-gal) was generated by reverse genetics and infused into the hepatic artery of Buffalo rats bearing orthotopically implanted multifocal HCC. Access by the virus to multifocal HCC lesions in the liver, as well as the kinetic profiles of intratumoral viral replication and spread, was established by X-gal staining of liver and tumor sections. Plaque assays were also performed to determine the infectious viral yields in tumor and normal liver tissues. Pharmacotoxicol. studies, including serum chemistries and proinflammatory cytokine production, as well as organ histopathol., were performed. Buffer- or vector-treated tumor-bearing rats were followed for survival and the results were analyzed by the Kaplan-Meier method and the log-rank test. Hepatic arterial infusion of rVSV-β-gal at the maximum tolerated dose in tumor-bearing rats resulted in efficient viral transduction of multifocal HCC lesions in their livers, tumor-selective viral replication, and extensive **oncolysis**. Importantly, no significant vector-associated toxicities were noted and, in particular, no damage to the hepatic parenchyma was seen. Finally, survival of vector-treated rats was substantially prolonged over that of animals in the control treatment group ($p < 0.028$). Thus, hepatic arterial administration of VSV is both effective and safe in an orthotopic animal model of multifocal HCC. The results suggest that oncolytic VSV can be developed into an effective and safe therapeutic modality for patients with multifocal HCC in the future.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:733806 CAPLUS

DOCUMENT NUMBER: 139:345511

TITLE: Ras-dependent **Oncolysis** with an Adenovirus VAI Mutant

AUTHOR(S): Cascallo, Manel; Capella, Gabriel; Mazo, Adela; Alemany, Ramon

CORPORATE SOURCE: Translational Research Laboratory, Institut Catala d'Oncologia, L'Hospitalet, 08907, Spain

SOURCE: Cancer Research (2003), 63(17), 5544-5550
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Adenovirus synthesize proteins that interact with oncogene and tumor suppressor gene products to set the cell for virus replication. Mutant viruses defective in these functions replicate selectively in cancer cells and represent new tools to treat cancer. We report a selectivity strategy based on deletions of adenovirus **Virus**-Associated (VA) **RNAs**. In normal cells, these **RNAs** are necessary for **virus** replication because they inactivate the **RNA**-dependent protein kinase protein kinase R, a kinase that otherwise would block protein translation in response to infection. However, downstream effectors of Ras can also inactivate protein kinase R, and therefore, the need for VA RNA genes should be bypassed in cells with an active Ras pathway. We demonstrate here that a VAI RNA mutant presents a Ras-dependent replication and can be used for oncolytic virotherapy of pancreatic tumors.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:668101 CAPLUS
DOCUMENT NUMBER: 140:104590
TITLE: **Oncolysis** of hepatic metastasis of colorectal cancer by recombinant vesicular stomatitis virus in immune-competent mice
AUTHOR(S): Huang, Tian-Gui; Ebert, Oliver; Shinozaki, Katsunori; Garcia-Sastre, Adolfo; Woo, Savio L. C.
CORPORATE SOURCE: Carl C. Icahn Center for Gene Therapy and Molecular Medicine, Mount Sinai School of Medicine, New York, NY, 10029-6574, USA
SOURCE: Molecular Therapy (2003), 8(3), 434-440
CODEN: MTOHCK; ISSN: 1525-0016
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB With currently available treatments, patients with metastatic colorectal cancer (CRC) have a median survival of 14.8 mo and a 5-yr survival rate of less than 10%. In recent years, tumor-targeted replicating viruses have rapidly emerged as potential novel oncolytic agents for cancer treatment. Vesicular stomatitis **virus** (VSV) is a neg.-strand **RNA virus** with inherent selectivity for replication in tumor cells due to their attenuated antiviral response. VSV is particularly appealing as an oncolytic agent for its exceptionally rapid replication cycle in tumor cells, whereby it is capable of manifesting its maximal oncolytic effects before the onset of neutralizing antiviral immune responses in the host. In this study, we used a recombinant VSV vector expressing the green fluorescent protein gene (rVSV-GFP) to monitor VSV replication easily in CRC cells. Using this GFP-expressing virus, we found that rVSV-GFP efficiently replicated and lysed murine and human CRC cell lines in vitro. We also evaluated the potential of rVSV-GFP to treat MCA26 CRC metastases implanted orthotopically into the livers of syngeneic BALB/c mice. We provide conclusive evidence that rVSV-GFP is able to replicate extensively in the tumors, but not in normal liver cells, in tumor-bearing mice. A single intratumoral injection also caused extensive tumor necrosis, which led to a significant prolongation of animal survival. Our results indicate that VSV can be an effective and safe oncolytic agent against hepatic CRC metastasis in immune-competent mice and may be developed for the treatment of cancer patients in the future.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:716031 CAPLUS
DOCUMENT NUMBER: 137:242151
TITLE: Oncolytic RNA replicons
INVENTOR(S): Ansardi, David C.; Morrow, Casey D.; Porter, Donna C.
PATENT ASSIGNEE(S): University of Alabama Research Foundation, USA; Replicon Technologies, Inc.
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072027	A2	20020919	WO 2002-US7646	20020313
WO 2002072027	A3	20030918		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,

GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2003040498 A1 20030227 US 2002-97058 20020313
PRIORITY APPLN. INFO.: US 2001-275840P P 20010314
AB The limited efficacy and/or toxicity of conventional therapies for many types of human cancers underscores the need for development of safe and effective alternative treatments. Towards this goal, the invention describes the direct oncolytic activity of **RNA**-based vectors derived from poliovirus, termed replicons, which are genetically incapable of producing infectious **virus**. Replicons of the invention are cytopathic in vivo for human tumor cells originating from brain, breast, lung, ovaries and skin (melanoma). Injection of replicons into established xenograft flank tumors in scid mice resulted in oncolytic activity and extended survival. Inoculation of replicons into established intracranial xenografts tumors in scid mice resulted in tumor infection and extended survival. Histol. anal. revealed that replicons infected tumors cells at the site of inoculation and, most importantly, diffused to infect tumor cells which had metastasized from the initial site of implementation. The wide spectrum of cytopathic activity for human tumors combined with effective distribution following in vivo inoculation establishes the therapeutic potential of poliovirus replicons for a variety of cancers. Replicons of the invention may addnl. comprise a heterologous nucleic acid with a min. length of one nucleotide. According to the invention, a heterologous nucleic acid is any nucleic acid that is not present in the genome of wildtype poliovirus. Thus, the invention contemplates a replicon having a transgene, a site-specific mutation (e.g. deletion, insertion, or substitution), a restriction site, a site-specific recombination site (e.g. loxP, FRT, and RS), an expression control sequence, or combinations thereof. Transgenes may confer or enhance oncolytic activity by various means. A transgene of the invention may also encode markers such as luciferase, an autofluorescent protein (e.g. green fluorescence protein), and 3-glucuronidase. A transgene for use in the invention may also encode an immunogen.

L12 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1959:46465 CAPLUS
DOCUMENT NUMBER: 53:46465
ORIGINAL REFERENCE NO.: 53:8390h-i,8391a
TITLE: Viral **oncolysis**. III. Immunochemical and electron-microscopic changes of Ehrlich ascites tumor cells infected with ED virus
AUTHOR(S): Nishioka, Kusuya; Yoshida, Takehiko; Kinukawa, Hayami; Ota, Kunio; Takahashi, Noboru
CORPORATE SOURCE: Univ. Tokyo
SOURCE: Japan. J. Microbiol (1958), 2, 285-97
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB (cf. Nishioka, et al., Japanese J. Microbiol. 1, 383, 1957). The nature of the complement-fixing antigen (I) synthesized in Ehrlich ascites tumor cells after exposure to ED virus (strain of influenza A virus) is described. I was resistant to heating at 56° for 30 min. but was destroyed completely at 65° for 30 min. Most of the antigenicity was destroyed by action of trypsin. I was separated from the hemagglutinin or egg infectivity of ED particle by adsorption with red blood cells or centrifugation at 24,000 g for 90 min. I was precipitated with specific immune antiserum. Analysis of the specific ppts. revealed that I was composed of ribonucleo-protein. Twenty-four hrs. after ED challenge, the amount of ribonucleic acid (RNA) in I reached about 2.5% of total RNA of Ehrlich tumor cell and then Ehrlich tumor cells underwent rapid **oncolysis** . Following differential centrifugation in 0.25 M sucrose, most I was in the fraction precipitated at 120,000 g; a small amount was in the subcellular particle nd supernatant fractions.

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6293 LEUKEMIAS
89621 LEUKEMIA
(LEUKEMIA OR LEUKEMIAS)
L28 3 L13 AND LEUKEMIA

=> D L28 IBIB ABS 1-3

L28 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:824043 CAPLUS
DOCUMENT NUMBER: 141:325690
TITLE: **VSV** mutants containing mutations in matrix protein capable of stimulating cytokine production and shutting down innate immunity and use thereof as vaccines and anti-cancer agents
INVENTOR(S): Bell, John C.; Lichty, Brian D.; Stojdl, David F.
PATENT ASSIGNEE(S): Ottawa Health Research Institute, Can.; Wellstat Biologics Corporation
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004085659	A2	20041007	WO 2004-CA463	20040329
WO 2004085659	A3	20041209		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-457591P P 20030327

AB The present invention provides mutant viruses with a decreased ability to block nuclear transport of mRNA or protein in an infected cell which are attenuated in vivo. The mutant viruses of the present invention may also be capable of triggering the anti-viral systems of normal host cells while remaining sensitive to the effects of these systems. The mutant viruses contain single, double or triple mutation(s) in matrix protein, such as M51R, M51A, M51-54A, ΔM51, ΔM51-54, ΔM51-57, V221F, S226R, ΔV221-S226, M51X, V221X, and S226X. In particular embodiments, interferon β stimulation and **oncolytic** activity were demonstrated by two specific mutants AV1 (T1026R) and AV2 (TP3) of the Indiana serotype of **VSV**, which are are selectively attenuated in interferon-responsive cells. AV1 and AV2 were tested in a xenograft model of human ovarian cancer and in an immune competent mouse model of metastatic colon cancer. While highly attenuated for growth in normal mice, both AV1 and AV2 effected complete and durable cures in the majority of treated animals when delivered systemically. The present invention further provides for the use of the mutant viruses in a range of applications including, but not limited to, as therapeutics for the treatment of cancer and infections, as vaccines and adjuvants, as viral vectors, and as **oncolytic** and cytolytic agents for the selective lysis of malignant or infected cells.

L28 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:725783 CAPLUS
TITLE: Vesicular Stomatitis Virus: A Potential Therapeutic Virus for the Treatment of Hematologic Malignancy
AUTHOR(S): Lichty, Brian D.; Stojdl, David F.; Taylor, Rebecca A.; Miller, Leigh; Frenkel, Irina; Atkins, Harold;

Bell, John C.
CORPORATE SOURCE: Ottawa Regional Cancer Centre Research Laboratories, Ottawa, ON, K1H 1C4, Can.
SOURCE: Human Gene Therapy (2004), 15(9), 821-831
CODEN: HGTHE3; ISSN: 1043-0342
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Certain strains of vesicular stomatitis virus (**VSV**) have been shown to be **oncolytic** in a wide variety of solid tumors. In the present study, we tested the leukemolytic properties of **VSV** using established **leukemia** cell lines and primary patient material. **VSV** efficiently killed essentially all leukemic cell lines. In contrast, however, normal clonogenic bone marrow progenitor cells and peripheral blood cells were remarkably refractory to infection by **VSV**. By exploiting this large difference in susceptibility to infection we successfully purged contaminating leukemic cells from cultures of peripheral blood progenitor cells (PBPC) using **VSV**. **VSV** was also able to infect and kill leukemic cells in primary samples taken from patients with multiple myeloma (MM). This study demonstrates the potential utility of **VSV** in the treatment, both ex vivo and in vivo, of hematol. malignancies.
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:620161 CAPLUS
DOCUMENT NUMBER: 139:244498
TITLE: Development of recombinant vesicular stomatitis viruses that exploit defects in host defense to augment specific **oncolytic** activity
AUTHOR(S): Obuchi, Masatsugu; Fernandez, Marilyn; Barber, Glen N.
CORPORATE SOURCE: Department of Microbiology and Immunology and Sylvester Comprehensive Cancer Center, University of Miami School of Medicine, Miami, FL, 33136, USA
SOURCE: Journal of Virology (2003), 77(16), 8843-8856
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vesicular stomatitis virus (**VSV**) is a neg.-stranded RNA virus normally sensitive to the antiviral actions of alpha/beta interferon (IFN-α/β). Recently, the authors reported that **VSV** replicates to high levels in many transformed cells due, in part, to susceptible cells harboring defects in the IFN system. These observations were exploited to demonstrate that **VSV** can be used as a viral **oncolytic** agent to eradicate malignant cells in vivo while leaving normal tissue relatively unaffected. To attempt to improve the specificity and efficacy of this system as a potential tool in gene therapy and against malignant disease, the authors have genetically engineered **VSV** that expresses the murine IFN-β gene. The resultant virus (**VSV**-IFNβ) was successfully propagated in cells not receptive to murine IFN-α/β and expressed high levels of functional heterologous IFN-β. In normal murine embryonic fibroblasts (MEFs), the growth of **VSV**-IFNβ was greatly reduced and diminished cytopathic effect was observed due to the production of recombinant IFN-β, which by functioning in a manner involving autocrine and paracrine mechanisms induced an antiviral effect, preventing virus growth. However, **VSV**-IFNβ grew to high levels and induced the rapid apoptosis of transformed cells due to defective IFN pathways being prevalent and thus unable to initiate proficient IFN-mediated host defense. Importantly, **VSV** expressing the human IFN-β gene (**VSV**-hIFNβ) behaved comparably and, while nonlytic to normal human cells, readily killed their malignant counterparts. Similar to the authors' in vitro observations, following i.v. and intranasal inoculation in mice, recombinant **VSV** (rVSV)-IFNβ was also significantly attenuated compared to wild-type **VSV** or rVSV expressing green fluorescent protein. However,

VSV-IFNβ retained propitious **oncolytic** activity against metastatic lung disease in immunocompetent animals and was able to generate robust antitumor T-cell responses. The authors' data indicate that rVSV designed to exploit defects in mechanisms of host defense can provide the basis for new generations of effective, specific, and safer viral vectors for the treatment of malignant and other disease.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L14 IBIB ABS 1-9

L14 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:151814 CAPLUS

TITLE: Selective gene transfer to tumor cells by recombinant Newcastle disease virus via a bispecific fusion protein

AUTHOR(S): Bian, Huijie; Fournier, Philippe; Moormann, Rob; Peeters, Ben; Schirrmacher, Volker

CORPORATE SOURCE: Division of Cellular Immunology, German Cancer Research Center, Heidelberg, D-69120, Germany

SOURCE: International Journal of Oncology (2005), 26(2), 431-439
CODEN: IJONES; ISSN: 1019-6439

PUBLISHER: International Journal of Oncology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Much interest exists presently in development of vectors for gene therapy of tumors based on RNA viruses because these viruses replicate in the cytoplasm and do not integrate into DNA. The neg. stranded paramyxovirus, Newcastle Disease Virus (**NDV**) from chicken has the addnl. advantages of preferential replication in tumor cells and of **oncolytic** and immunostimulatory properties. We here describe the bispecific fusion protein αHN-IL-2 which binds to **NDV**, inhibits its normal cell binding property and introduces a new binding specificity for the interleukin-2 receptor (IL-2R). We demonstrate selective gene transfer to tumor cells expressing IL-2R via the bispecific fusion protein when using recombinant **NDV** carrying as marker gene the enhanced green fluorescence protein (NDFL-EGFP). Hemadsorption (HA) and neuraminidase activities (NA) of the HN protein of **NDV** were shown to be blocked by αHN-IL-2 simultaneously and the absence of HA-activity of modified **NDV** was confirmed in vivo. Retargeted virus-binding to IL-2R pos. tumor cells was not sufficient for the process of cellular infection. It required in addition membrane fusion via the viral F-protein. By modification of recombinant **NDV** with a bispecific mol., our results demonstrate a novel and safe strategy for selective gene transfer to targeted tumor cells.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:363266 CAPLUS

DOCUMENT NUMBER: 140:417458

TITLE: Syncytia Induction Enhances the **Oncolytic** Potential of Vesicular Stomatitis Virus in Virotherapy for Cancer

AUTHOR(S): Ebert, Oliver; Shinozaki, Katsunori; Kournioti, Chryssanthi; Park, Man-Seong; Garcia-Sastre, Adolfo; Woo, Savio L. C.

CORPORATE SOURCE: Carl C. Icahn Center for Gene Therapy and Molecular Medicine, Mount Sinai School of Medicine, New York, NY, 10029, USA

SOURCE: Cancer Research (2004), 64(9), 3265-3270
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Vesicular stomatitis virus (VSV) selectively replicates in tumor but not

in normal cells and is being developed as an **oncolytic** agent for cancer therapy. Here we report the construction of a recombinant VSV capable of inducing syncytia formation between tumor cells through membrane fusion at neutral pH, which led to enhanced **oncolytic** properties against multifocal hepatocellular carcinoma (HCC) in the livers of immunocompetent rats. Recombinant VSV vectors were constructed by insertion into their genome a transcription unit expressing a control or fusion protein derived from Newcastle disease virus. In vitro characterization of the recombinant fusogenic VSV vector on human and rat HCC cells showed extensive syncytia formation and significantly enhanced cytotoxic effects. In vivo, administration of fusogenic VSV into the hepatic artery of Buffalo rats bearing syngeneic multifocal HCC lesions in their livers resulted in syncytia formation exclusively within the tumors, and there was no collateral damage to the neighboring hepatic parenchyma. The fusogenic VSV also conferred a significant survival advantage over a nonfusogenic control virus in the treated animals (P = 0.0078, log-rank test). The results suggest that fusogenic VSV can be developed into an effective and safe therapeutic agent for cancer treatment in patients, including those with multifocal HCC in the liver.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:221456 CAPLUS
DOCUMENT NUMBER: 138:251446
TITLE: Apathogenic strains of Newcastle Disease virus for treatment of cancer
INVENTOR(S): Zakay-Rones, Zichria; Panet, Amos; Irving, Charles
PATENT ASSIGNEE(S): Yissum Research Development Company, Israel; Ovcure Inc.
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022202	A2	20030320	WO 2002-IL765	20020912
WO 2003022202	A3	20040318		
WO 2003022202	C2	20040422		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1424897	A2	20040609	EP 2002-775172	20020912
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2005031642	A1	20050210	US 2004-800256	20040311
PRIORITY APPLN. INFO.:			IL 2001-145397 A	20010912
			WO 2002-IL765 W	20020912

AB The present invention relates to lentogenic (apathogenic) strains of Newcastle Disease virus (**NDV**) that have **oncolytic** activities, and the use of such viruses and/or isolated proteins derived from all strains of the **NDV** virus in the treatment of cancer. The present invention thus provides compns. and methods for treatment of cancer using lentogenic **oncolytic** strain of nonhuman virus, the Newcastle Disease virus (**NDV**). It further provides methods for treatment of cancer comprising isolated viral proteins or subunits or analogs thereof having **oncolytic** activity as well as isolated polynucleotides or constructs containing same, which encode for the viral

proteins. The polynucleotides or constructs containing same may include any vector polynucleotide, including viral vector polynucleotide. The present invention provides host cells containing the polynucleotides, constructs containing same, and the vector polynucleotides as described above, which will also be used for treatment of cancer. The present invention further provides treatment of cancer using combination of any of the above. A modified lentogenic **NDV** strain denoted herein as HUJ is disclosed below. The HUJ strain was compared to MTH-68/H strain of **NDV**, which is an attenuated strain obtained by serial passages through eggs (allantoic fluid), manufactured in Hungary by Phylaxia-Sanofi [Csatary and al. Anticancer Research (1999) 19-(1B):635-8]. The effect of MTH strain on cytotoxicity (Fig. 1) and apoptosis (Fig. 2) is more rapid than that observed with the HUJ strain. However, after 96 h of incubation both strains exhibit identical effect. Both viruses were also found to arrest cell replication. A rapid inhibition of DNA synthesis (90-95 %) was observed after 1 h of interaction of cells with **NDV** strains and fractions RO, RHN, B-1 and BHN.

L14 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:68441 CAPLUS
DOCUMENT NUMBER: 137:134216
TITLE: Replication-competent, **oncolytic** Newcastle disease virus for cancer therapy
AUTHOR(S): Lorence, Robert M.; Roberts, M. Scot; Groene, William S.; Rabin, Harvey
CORPORATE SOURCE: Department of Viral Therapeutics, Pro-Virus, Inc., Gaithersburg, USA
SOURCE: Monographs in Virology (2001), 22(Replication-Competent Viruses for Cancer Therapy), 160-182
CODEN: MONVAK; ISSN: 0077-0965
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review discusses the use of Newcastle disease virus (**NDV**) for cancer therapy. **NDV** has several properties that help differentiate it from other viruses for cancer therapy. Cytolytic strains of **NDV** have key features as replication-competent, **oncolytic** agents. Their high **oncolytic** potency and tumor selectivity are particularly important for systemic administration which is being explored in a current phase-I i.v. trial of advanced cancer patients using PV701, a cytolytic **NDV** strain.
REFERENCE COUNT: 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:669671 CAPLUS
TITLE: Newcastle disease virus therapy of human tumor xenografts: antitumor effects of local or systemic administration
AUTHOR(S): Phuangsab, A.; Lorence, R. M.; Reichard, K. W.; Peeples, M. E.; Walter, R. J.
CORPORATE SOURCE: Department of Surgery, Cook County Hospital, Chicago, IL, 60612, USA
SOURCE: Cancer Letters (Shannon, Ireland) (2001), 172(1), 27-36
CODEN: CALEDQ; ISSN: 0304-3835
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Previously we showed that a single local injection of the avian paramyxovirus Newcastle disease virus (**NDV**) strain 73-T caused long-lasting, complete tumor regression of human neuroblastoma and fibrosarcoma xenografts in athymic mice. Here we report the antitumor effects of **NDV** administered by either the intratumoral (IT) route to treat a variety of human carcinoma xenografts or by the systemic (i.p., IP) route to treat neuroblastoma xenografts (6.5-12 mm in diameter). For IT treatments, mice were randomized into treatment groups and given a single IT injection of **NDV** 73-T, vehicle (phosphate buffered

saline, PBS), or UV-inactivated **NDV**. For systemic therapy, mice (n=18) with s.c. IMR-32 human neuroblastoma xenografts received IP injections of **NDV** (5+109 PFU). Significant tumor growth inhibition (77-96%) was seen for epidermoid (KB8-5-11), colon (SW620 and HT29), large cell lung (NCIH460), breast (SKBR3), prostate (PC3), and low passage colon (MM17387) carcinoma xenografts treated IT with **NDV**. In all cases, tumors treated IT with PBS or replication-incompetent, UV-inactivated **NDV** displayed rapid tumor growth. After a single IP injection of **NDV**, complete regression of IMR-32 neuroblastomas was observed in 9 of 12 mice without recurrence for the 3-9 mo follow-up period. Six mice with recurrent neuroblastomas after one IP injection received one to three addnl. IP treatments with **NDV**. Three of these six mice showed complete regression without recurrence. These data show that: (1) **NDV** administered either IT or IP is an effective antitumor therapy in this system, (2) replication competency is necessary for maximal effect, and (3) multiple **NDV** doses can be more effective than a single dose. These studies provide further rationale for the preclin. study of **NDV** as an **oncolytic** agent.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:294496 CAPLUS
DOCUMENT NUMBER: 135:342896
TITLE: Induction of apoptosis by a Newcastle Disease Virus vaccine (MTH-68/H) in PC12 rat pheochromocytoma cells
AUTHOR(S): Fabian, Zsolt; Torocsik, Beata; Kiss, Katalin; Csatary, Laszlo K.; Bodey, Bela; Tigyi, Jozsef; Csatary, Christine; Szeberenyi, Jozsef
CORPORATE SOURCE: Department of Medical Biology, Pecs University, Pecs, Hung.
SOURCE: Anticancer Research (2001), 21(1A), 125-135
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: International Institute of Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The attenuated Newcastle Disease Virus (**NDV**) vaccine MTH-68/H has been found to cause regression of various tumors including certain types of human neoplasms. The mechanism of its **oncolytic** action is poorly understood, but it appears to affect specific signaling pathways in the target cell. We studied the cellular effects of **NDV** employing PC12 rat pheochromocytoma cells, a widely used model system to analyze differentiation, proliferation and apoptosis. The MTH-68/H vaccine was found to be cytotoxic on PC12 cells. It caused internucleosomal DNA fragmentation, the most characteristic feature of programmed cell death (PCD). A brief exposure (30 min) of P12 cells to the virus was sufficient to produce a full-blown apoptotic response. Major mitogen-activated protein kinase pathways (including the stress inducible c-Jun N-terminal kinase pathway and p38 pathway) or mechanisms regulated by reactive oxygen species appear to have no role in virus-induced cell death. The PCD-inducing effect of MTH-68/H could not be prevented by simultaneous treatment of the P12 cells with growth factors or second messenger analogs stimulating protein kinase C or Ca++-mediated pathways. In contrast, treatment with a cAMP analog partially protected them from virus-induced apoptosis. These exptl. results suggests that MTH-68/H might disrupt a growth factor-stimulated survival pathway and that direct stimulation of protein kinase A-catalyzed phosphorylation events bypass this **NDV**-induced block.

REFERENCE COUNT: 110 THERE ARE 110 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:85153 CAPLUS
DOCUMENT NUMBER: 132:305651
TITLE: Newcastle disease virus (**NDV**): brief history of its **oncolytic** strains

AUTHOR(S): Sinkovics, J. G.; Horvath, J. C.
CORPORATE SOURCE: St. Joseph's Hospital, Cancer Institute, Tampa, FL, USA
SOURCE: Journal of Clinical Virology (2000), 16(1), 1-15
CODEN: JCVIFB; ISSN: 1386-6532
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Background: While genetically engineered viruses are now being tested for the virus therapy of human cancers, some naturally occurring viruses display unmatched **oncolytic** activity. Newcastle disease virus (**NDV**) excels as an **oncolytic** agent. Objectives: As its virulence vs. attenuation can be explained on mol. biol. bases, it may be possible to develop or select highly **oncolytic** strains of **NDV** without adverse toxicity. Study design: Questions are posed as to the mechanisms of viral oncolysis, the appropriateness of tests to predict **oncolytic** activity of a given **NDV** strain and the best modes of administration for **oncolytic** effects. Answers are provided based on specific data or on considerations drawn from experience (the authors use **NDV** oncolyzates to immunize against melanoma and kidney carcinoma) or from analogous clin. situations (therapeutic use of mumps or measles viruses). Results and conclusions: **NDV** oncolyzates probably suit better for immunotherapy (providing also active tumor-specific immunization) than massive repeated inoculations of **NDV** strains, especially when the **NDV** strain used is not proven to be **oncolytic** by appropriate pre-clin. tests.

REFERENCE COUNT: 142 THERE ARE 142 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:628341 CAPLUS
DOCUMENT NUMBER: 109:228341
TITLE: Newcastle disease virus as an antineoplastic agent: induction of tumor necrosis factor-α and augmentation of its cytotoxicity
AUTHOR(S): Lorence, Robert M.; Rood, Pamela A.; Kelley, Keith W.
CORPORATE SOURCE: Dep. Anim. Sci., Univ. Illinois, Urbana, IL, USA
SOURCE: Journal of the National Cancer Institute (1988), 80(16), 1305-12
CODEN: JNCIEQ; ISSN: 0027-8874
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The **oncolytic** strain 73-T of Newcastle disease virus (**NDV**) has been reported to be beneficial in the treatment of cancer patients, but little is known about its mechanism of action. **NDV** strain 73-T and a wild-type isolate of **NDV** were found to be potent inducers of tumor necrosis factor (TNF) production by both human peripheral blood mononuclear cells (PBMCs) and rat splenocytes. Antibody inhibition expts. identified TNF-α as the major species of TNF induced by **NDV** in PBMCs. Neither rHuTNF-α nor supernatants from **NDV**-stimulated PBMCs were cytotoxic toward the TNF-resistant human malignant melanoma cell line MEL-14. However, when MEL-14 cells were treated with **NDV** strain 73-T, both rHuTNF-α and supernatants from **NDV**-stimulated PBMCs killed 48% and 55%, resp., of these tumor cells. Treatment with **NDV** also confered TNF susceptibility to the TNF-resistant human malignant melanoma cell line MEL-21 and the human myelogenous leukemia cell line K562. These results suggest two important mechanisms for the antineoplastic activity of **NDV**: (a) induction of TNF-α secretion by human PBMCs and (b) enhancement of the sensitivity of neoplastic cells to the cytolytic effects of TNF-α.

L14 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1970:130465 CAPLUS
DOCUMENT NUMBER: 72:130465
TITLE: Inhibitory effect of myxoviruses on a transplantable

murine leukemia
AUTHOR(S): Eaton, M. D.; Scala, A. R.
CORPORATE SOURCE: Dep. of Bacteriol. and Immunol., Harvard Med. Sch., Boston, MA, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1969), 132(1), 20-6
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Immunization of mice with parainfluenza viruses **NDV** or Sendai virus increases the **oncolytic** effect of these viruses when preinfected leukemic cells are injected into mice. Variations in **oncolytic** activity between different strains of influenza and parainfluenza viruses were noted, and also between 2 leukemic tumors induced by the Gross virus. Statolon given before virus-infected cells prevents oncolysis but has no effect when given later. Antiserum to **NDV** or Sendai (plus complement) shows a cytolytic effect in vitro against leukemic cells infected with these viruses.

=> D L24 IBIB ABS 1-4

L24 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:885657 CAPLUS
DOCUMENT NUMBER: 140:26661
TITLE: A Broadly Applicable, Personalized Heat Shock Protein-Mediated Oncolytic Tumor Vaccine
AUTHOR(S): Huang, Xue F.; Ren, Wenhong; Rollins, Lisa; Pittman, Pauline; Shah, Molik; Shen, Lei; Gu, Qinlong; Strube, Randy; Hu, Fang; Chen, Si-Yi
CORPORATE SOURCE: Center for Cell and Gene Therapy, Baylor College of Medicine, Houston, TX, 77030, USA
SOURCE: Cancer Research (2003), 63(21), 7321-7329
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Each tumor harbors unique repertoire of mutated antigenic peptides that are immunogenic and potentially can induce tumor-specific immune responses. Because heat shock proteins (HSPs) have the promiscuous ability to chaperone and present a broad repertoire of tumor antigens to antigen presenting cells, HSP tumor vaccine has been tested in clin. trials. However, this vaccine has many limitations, including individual preparation of HSP vaccines from each tumor **ex vivo**, and quantity of HSPs for therapy strictly limited by the size of the resected tumor mass. Hence, the authors developed a novel HSP-mediated oncolytic tumor vaccine, referred to as HOT vaccine, by combining the versatile ability of overexpressed HSPs to chaperone antigenic peptides and induce immune responses against a broad array of mutated tumor antigens, with the oncolytic activity of viruses. The results of this study demonstrate that intratumor vaccination with a recombinant oncolytic adenovirus overexpressing the HSP70 protein can eradicate primary tumors, as well as inhibit the growth of established metastatic tumor in mice. Because of its capacity to induce individual tumor-specific immune responses, this HSP-mediated oncolytic tumor vaccine might become a universally applicable, personalized vaccine against any type of solid tumor.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:513612 CAPLUS
DOCUMENT NUMBER: 139:362492
TITLE: Reovirus **oncolysis** as a novel purging strategy for autologous stem cell transplantation
AUTHOR(S): Thirukkumaran, Chandini M.; Luider, Joanne M.; Stewart, Douglas A.; Cheng, Tina; Lupichuk, Sasha M.; Nodwell, Michael J.; Russell, James A.; Auer, Iwona A.; Morris, Donald G.

CORPORATE SOURCE: Calgary Laboratory Services, Calgary, AB, Can.
SOURCE: Blood (2003), 102(1), 377-387
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: American Society of Hematology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hematol. stem cell rescue after high-dose cytotoxic therapy is extensively used for the treatment of many hematopoietic and solid cancers. Gene marking studies suggest that occult tumor cells within the autograft may contribute to clin. relapse. To date purging of autografts contaminated with cancer cells was unsuccessful. The selective oncolytic property of reovirus against myriad malignant histologies in in vitro, in vivo, and **ex vivo** systems was previously demonstrated. In the present study the authors have shown that reovirus can successfully purge cancer cells within autografts. Human monocytic and myeloma cell lines as well as enriched **ex vivo** lymphoma, myeloma, and Waldenstroem macroglobulinemia patient tumor specimens were used in an exptl. purging model. Viability of the cell lines or purified **ex vivo** tumor cells of diffuse large B-cell lymphoma, chronic lymphocytic leukemia, Waldenstroem macroglobulinemia, and small lymphocytic lymphoma was significantly reduced after reovirus treatment. Further, [35S]-methionine labeling and sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) of cellular proteins demonstrated reovirus protein synthesis and disruption of host cell protein synthesis as early as 24 h. , Admixts. of apheresis product with the above-mentioned tumor cells and cell lines treated with reovirus showed complete purging of disease. In contrast, reovirus purging of enriched **ex vivo** multiple myeloma, Burkitt lymphoma, and follicular lymphoma was incomplete. The oncolytic action of reovirus did not affect CD34+ stem cells or their long-term colony-forming assays even after granulocyte colony-stimulating factor (G-CSF) stimulation. The authors' results indicate the **ex vivo** use of an unattenuated oncolytic virus as an attractive purging strategy for autologous stem cell transplantations.

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:420834 CAPLUS
DOCUMENT NUMBER: 137:332821
TITLE: Reovirus **oncolysis** of human breast cancer
AUTHOR(S): Norman, Kara L.; Coffey, Matthew C.; Hirasawa, Kensuke; Demetrick, Douglas J.; Nishikawa, Sandra G.; DiFrancesco, Lisa M.; Strong, James E.; Lee, Patrick W. K.
CORPORATE SOURCE: Cancer Biology Research Group, Faculty of Medicine, Department of Microbiology and Infectious Diseases, University of Calgary, Calgary, AB, T2N 4N1, Can.
SOURCE: Human Gene Therapy (2002), 13(5), 641-652
CODEN: HGTHE3; ISSN: 1043-0342
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have previously shown that human reovirus replication is restricted to cells with an activated Ras pathway, and that reovirus could be used as an effective oncolytic agent against human glioblastoma xenografts. This study examines in more detail the feasibility of reovirus as a therapeutic for breast cancer, a subset of cancer in which direct activating mutations in the ras proto-oncogene are rare, and yet where unregulated stimulation of Ras signaling pathways is important in the pathogenesis of the disease. The authors demonstrate herein the efficient lysis of breast tumor-derived cell lines by the virus, whereas normal breast cells resist infection in vitro. In vivo studies of reovirus breast cancer therapy reveal that viral administration could cause tumor regression in an MDA-MB-435S mammary fat pad model in severe combined immunodeficient mice. Reovirus could also effect regression of tumors remote from the injection site in an MDA-MB-468 bilateral tumor model, raising the possibility of systemic therapy of breast cancer by the

oncolytic agent. Finally, the ability of reovirus to act against primary breast tumor samples not propagated as cell lines was evaluated; the authors found that reovirus could indeed replicate in **ex vivo** surgical specimens. Overall, reovirus shows promise as a potential breast cancer therapeutic.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:509668 CAPLUS
DOCUMENT NUMBER: 136:241196
TITLE: Reovirus as an oncolytic agent against experimental human malignant gliomas
AUTHOR(S): Wilcox, M. Elizabeth; Yang, WenQing; Senger, Donna; Rewcastle, N. Barry; Morris, Donald G.; Brasher, Penny M. A.; Shi, Z. Qiao; Johnston, Randal N.; Nishikawa, Sandi; Lee, P. W. K.; Forsyth, Peter A.
CORPORATE SOURCE: Departments of Oncology and Clinical Neurosciences, University of Calgary, AB, Can.
SOURCE: Journal of the National Cancer Institute (2001), 93(12), 903-912
CODEN: JNCIEQ; ISSN: 0027-8874
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Reovirus is a naturally occurring oncolytic virus that usurps activated Ras-signaling pathways of tumor cells for its replication. Ras pathways are activated in most malignant gliomas via upstream signaling by receptor tyrosine kinases. The purpose of this study was to determine the effectiveness of reovirus as an exptl. treatment for malignant gliomas. We investigated whether reovirus would infect and lyse human glioma cell lines in vitro. We also tested the effect of injecting live reovirus in vivo on human gliomas grown s.c. or orthotopically (i.e., intracerebrally) in mice. Finally, reovirus was tested **ex vivo** against low-passage cell lines derived from human glioma specimens. All P values were two-sided. Reovirus killed 20 (83%) of 24 established malignant glioma cell lines tested. It caused a dramatic and often complete tumor regression in vivo in two s.c. ($P = .0002$ for both U251N and U87) and in two intracerebral ($P = .0004$ for U251N and $P = .0009$ for U87) human malignant glioma mouse models. As expected, serious toxic effects were found in these severely immunocompromised hosts. In a less immunocompromised mouse model, a single intratumoral inoculation of live reovirus led to a dramatic prolongation of survival (compared with control mice treated with dead virus; log-rank test, $P < .0001$ for both U251N and U87 cell lines). The animals treated with live virus also appeared to be healthier and gained body weight ($P = .0001$). We then tested the ability of reovirus to infect and kill primary cultures of brain tumors removed from patients and found that it killed nine (100%) of nine glioma specimens but none of the cultured meningiomas. Reovirus has potent activity against human malignant gliomas in vitro, in vivo, and **ex vivo**. **Oncolysis** with reovirus may be a potentially useful treatment for a broad range of human cancers.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Autologous Blood Transfusion

Patient In

What is the Autologous Blood Programme?

Autologous is Greek in origin. The definition is exact 'auto' meaning self and 'logous' means relation. The meaning to self'. The Autologous Blood Transfusion Programme allows you to donate your blood for your own use. You can donate one or more units of blood during the weeks prior to a planned surgery. After collection, your blood will be c marked with your name for your specific use.

Why use the Autologous Blood Programme?

When you receive your blood the risk of disease such as hepatitis and AIDS and other undesirable side effects are

Who is eligible?

Most people can participate in the Autologous Blood Transfusion Programme if they are scheduled for elective sur guidelines used to determine who can donate autologous blood are more liberal than for regular blood donors.

Location

Haematology wing, Ground Floor, Multibuilding (just follow the signs).

When is Autologous Blood Donation Performed?

When you receive your admission date from the Hospital, contact our Blood Donor Centre for an appointment. The open between 7.30am and 4.00pm, Monday to Friday and can be contacted on telephone 9767 6695.

Will donating affect my health?

Although giving blood stimulates your body to replace red blood cells you may after repeated donation become iro The best way to replace the iron is by eating food that contains iron. In addition, you will be given iron tablets after donation.

Will it cost anything?

The schedule fee is charged for this service.

Any special instructions?

Pre-donation Instructions

- Have a good breakfast on the morning of the donation.
- Bring some form of positive identification.
- Have a friend or relative accompany you if possible.
- If you need reading glasses please bring them with you

Meaning of AUTOLOGOUS TRANSPLANT

Medical Dictionary

Definition: a procedure in which a patient's own bone marrow is removed, treated with anticancer drugs or then returned to the patient.

Biology Dictionary

Definition: A transplant of an organ or tissue that is taken from the same individual. A person having blood at a time several months before a surgery to replace the blood they expect to lose during that s form of autologous transplant. Likewise, the use of muscle tissue taken from a person's back to reconstruct their damaged hand would be another form of autologous transplant.

Adj. 1. ex vivo - in an artificial environment outside the living organism; "in vitro fertilization"
Antonyms: in vivo - within a living organism; "in vivo techniques"
Synonyms: in vitro

Adv. 1. ex vivo - in an artificial environment outside the living organism; "an egg fertilized in vitro"
Synonyms: in vitro